

Purpose Designed to screen for sleep problems in children. A shorter version is shown (following) which specifically relates to sleep-disordered breathing (SDB) in children. The scale consists of 22 parent-reported items examining snoring and breathing problems, daytime sleepiness, inattention, hyperactivity, and other signs and symptoms of apnea including obesity and nocturnal enuresis.

Population for Testing The scale has been validated with patients aged 2–18 years.

Administration Requiring between 5 and 10 min for completion, the instrument is a self-report measure that solicits responses from parents or caregivers.

Reliability and Validity Developers Chervin and colleagues [1] evaluated the scale against the results of polysomnography and found a sensitivity ranging from .81 to .85, a specificity of .87, an internal consistency of .66 to .89, and a test–retest reliability of .66 to .92.

Obtaining a Copy Questionnaire examples can be found in developers' original published article [1].

Direct correspondence to:

R.D. Chervin

Sleep Disorders Center, University Hospital
8D8702

P.O. Box 0117, 1500 E. Medical Center

Dr Ann Arbor, MI 48109-0117, USA

Email: chervin@umich.edu

Scoring The majority of items are responded to with simple “yes” or “no” answers, and receive scores of 1 or 0 respectively. However, questions concerning inattention and hyperactivity are completed using a Likert-type scale which is later made binary – “does not apply” and “applies just a little” are scored as 0 and “applies quite a bit” and “definitely applies most of the time” receive a score of 1. While this “yes/no” system of scoring ensures that respondents who shy away from the most extreme values of the scale are still counted within applicable categories, it also prevents the instrument from distinguishing between different degrees of disorder severity.

PEDIATRIC SLEEP QUESTIONNAIRE

Version 070424

Child's Name: _____,
(Last) (First) (M.I.)

Name of Person Answering Questions: _____.

Relation to Child: _____.

Your phone number, days: _____, and evenings: _____.
Area Code Number Area Code Number

Relative's name and number in case we cannot reach you: _____.
Area Code Number

Instructions:

Please answer the questions on the following pages regarding the behavior of your child during sleep and wakefulness. The questions apply to how your child acts in general, not necessarily during the past few days since these may not have been typical if your child has not been well. If you are not sure how to answer any question, please feel free to ask your husband or wife, child, or physician for help. You should circle the correct response or print your answers neatly in the space provided. A "Y" means "yes," "N" means "no," and "DK" means "don't know." When you see the word "usually" it means "more than half the time" or "on more than half the nights."

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GENERAL INFORMATION ABOUT YOUR CHILD:

Today's Date: _____
 Month Day Year

Where are you completing this questionnaire? _____.

Date of Child's Birth: _____
 Month Day Year

Sex: Male or Female? _____.

Current Height (feet/inches) : _____.

Current Weight (pounds) : _____.

Grade in school (if applicable): _____.

Racial/Ethnic Background of your Child (please circle):

- | | |
|------------------------|----------------------|
| 1.) American Indian | 2.) Asian-American |
| 3.) African-American | 4.) Hispanic |
| 5.) White/not Hispanic | 6.) Other or unknown |

Office use only

GI1

GI2

GI3

GI4

GI5

GI6

GI7

GI8

GI9

A. Nighttime and sleep behavior:		Office use only
WHILE SLEEPING, DOES YOUR CHILD ...		
... ever snore?	Y N DK	A1
... snore more than half the time?	Y N DK	A2
... always snore?	Y N DK	A3
... snore loudly?	Y N DK	A4
... have "heavy" or loud breathing?	Y N DK	A5
... have trouble breathing, or struggle to breathe?	Y N DK	A6
HAVE YOU EVER ...		
... seen your child stop breathing during the night? If so, please describe what has happened:	Y N DK	A7
... been concerned about your child's breathing during sleep?	Y N DK	A8
... had to shake your sleeping child to get him or her to breathe, or wake up and breathe?	Y N DK	A9
... seen your child wake up with a snorting sound?	Y N DK	A11
DOES YOUR CHILD ...		
... have restless sleep?	Y N DK	A12
... describe restlessness of the legs when in bed?	Y N DK	A13
... have "growing pains" (unexplained leg pains)?	Y N DK	A13a
... have "growing pains" that are worst in bed?	Y N DK	A13b
WHILE YOUR CHILD SLEEPS, HAVE YOU SEEN ...		
... brief kicks of one leg or both legs?	Y N DK	A14
... repeated kicks or jerks of the legs at regular intervals (i.e., about every 20 to 40 seconds)?	Y N DK	A14a
AT NIGHT, DOES YOUR CHILD USUALLY ...		
... become sweaty, or do the pajamas usually become wet with perspiration?	Y N DK	A15
... get out of bed (for any reason)?	Y N DK	A16

... get out of bed to urinate?	Y N DK	A17
If so, how many times each night, on average?	_____	A17a
	times	
Does your child usually sleep with the mouth open?	Y N DK	A21
Is your child's nose usually congested or "stuffed" at night?	Y N DK	A22
Do any allergies affect your child's ability to breathe through the nose?	Y N DK	A23
DOES YOUR CHILD ...		
... tend to breathe through the mouth during the day?	Y N DK	A24
... have a dry mouth on waking up in the morning?	Y N DK	A25
... complain of an upset stomach at night?	Y N DK	A27
... get a burning feeling in the throat at night?	Y N DK	A29
... grind his or her teeth at night?	Y N DK	A30
... occasionally wet the bed?	Y N DK	A32
Has your child ever walked during sleep ("sleep walking")?	Y N DK	A33
Have you ever heard your child talk during sleep ("sleep talking")?	Y N DK	A34
Does your child have nightmares once a week or more on average?	Y N DK	A35
Has your child ever woken up screaming during the night?	Y N DK	A36
Has your child ever been moving or behaving, at night, in a way that made you think your child was neither completely awake nor asleep?	Y N DK	A37
If so, please describe what has happened:		
Does your child have difficulty falling asleep at night?	Y N DK	A40
How long does it take your child to fall asleep at night? (a guess is O.K.)	_____	A41
	minutes	
At bedtime does your child usually have difficult "routines" or "rituals," argue a lot, or otherwise behave badly?	Y N DK	A42
DOES YOUR CHILD ...		
... bang his or her head or rock his or her body when going to sleep?	Y N DK	A43
... wake up more than twice a night on average?	Y N DK	A44
... have trouble falling back asleep if he or she wakes up at night?	Y N DK	A45

... wake up early in the morning and have difficulty going back to sleep?	Y N DK	A46
Does the time at which your child <u>goes to bed</u> change a lot from day to day?	Y N DK	A47
Does the time at which your child <u>gets up from bed</u> change a lot from day to day?	Y N DK	A48
WHAT TIME DOES YOUR CHILD USUALLY ...		
... go to bed during the week?		A49
... go to bed on the weekend or vacation?		A50
... get out of bed on weekday mornings?		A51
... get out of bed on weekend or vacation mornings?		A52

B. Daytime behavior and other possible problems:		Office Use Only
DOES YOUR CHILD ...		
... wake up feeling <u>unrefreshed</u> in the morning?	Y N DK	B1
... have a problem with sleepiness during the day?	Y N DK	B2
... complain that he or she feels sleepy during the day?	Y N DK	B3
Has a teacher or other supervisor commented that your child appears sleepy during the day?	Y N DK	B4
Does your child usually take a nap during the day?	Y N DK	B5
Is it hard to wake your child up in the morning?	Y N DK	B6
Does your child wake up with headaches in the morning?	Y N DK	B7
Does your child get a headache at least once a month, on average?	Y N DK	B8
Did your child stop growing at a normal rate at any time since birth?	Y N DK	B9
If so, please describe what happened:		
Does your child still have tonsils?	Y N DK	B10
If not, when and why were they removed?:		
HAS YOUR CHILD EVER ...		
... had a condition causing difficulty with breathing?	Y N DK	B11

If so, please describe:		
... had surgery?	Y N DK	B12
If so, did any difficulties with breathing occur before, during, or after surgery?	Y N DK	B12a
... become suddenly weak in the legs, or anywhere else, after laughing or being surprised by something?	Y N DK	B13
... felt unable to move for a short period, in bed, though awake and able to look around?	Y N DK	B15
Has your child felt an irresistible urge to take a nap at times, forcing him or her to stop what he or she is doing in order to sleep?	Y N DK	B16
Has your child ever sensed that he or she was dreaming (seeing images or hearing sounds) while still awake?	Y N DK	B17
Does your child drink caffeinated beverages on a typical day (cola, tea, coffee)?	Y N DK	B18
If so, how many cups or cans per day?	_____ cups	B18a
Does your child use any recreational drugs?	Y N DK	B19
If so, which ones and how often?:		
Does your child use cigarettes, smokeless tobacco, snuff, or other tobacco products? If so, which ones and how often?:	Y N DK	B20
Is your child overweight?	Y N DK	B22
If so, at what age did this first develop?	_____ years	B22a
Has a doctor ever told you that your child has a high-arched palate (roof of the mouth)?	Y N DK	B23
Has your child ever taken Ritalin (methylphenidate) for behavioral problems?	Y N DK	B24
Has a health professional ever said that your child has attention-deficit disorder (ADD) or attention-deficit/hyperactivity disorder (ADHD)?	Y N DK	B25

C. Other Information

1. If you are currently at a clinic with your child to see a physician, what is the problem that brought you?

2. If your child has long-term medical problems, please list the three you think are most significant.

3. Please list any medications your child currently takes:

<u>Medicine</u>	<u>Size (mg) or amount per dose</u>	<u>Taken when?</u>
<hr/>	<hr/>	<hr/>
Effect:	<hr/>	
<hr/>	<hr/>	<hr/>
Effect:	<hr/>	
<hr/>	<hr/>	<hr/>
Effect:	<hr/>	
<hr/>	<hr/>	<hr/>
Effect:	<hr/>	

4. Please list any medication your child has taken in the past if the purpose of the medication was to improve his or her behavior, attention, or sleep:

<u>Medicine</u>	<u>Size (mg) or amount per dose</u>	<u>Taken how often?</u>	<u>Dates Taken</u>
-----------------	-------------------------------------	-------------------------	--------------------

_____	_____	_____	_____
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Effect: _____.

_____	_____	_____	_____
-------	-------	-------	-------

Effect: _____.

_____	_____	_____	_____
-------	-------	-------	-------

Effect: _____.

_____	_____	_____	_____
-------	-------	-------	-------

Effect: _____.

5. Please list any sleep disorders diagnosed or suspected by a physician in your child. For each problem, please list the date it started and whether or not it is still present.

6. Please list any psychological, psychiatric, emotional, or behavioral problems diagnosed or suspected by a physician in your child. For each problem, please list the date it started and whether or not it is still present.

7. Please list any sleep or behavior disorders diagnosed or suspected in *your child's* brothers, sisters, or parents:

<u>Relative</u>	<u>Condition</u>
_____	_____
_____	_____
_____	_____

D. Additional Comments:

Please use the space below to print any additional comments you feel are important.
Please also use this space to describe details regarding any of the above questions.

Instructions:

Please indicate, by checking the appropriate box, how much each statement* applies to this child:

This child often...	Does not apply 0	Applies just a little 1	Applies quite a bit 2	Definitely applies most of the time 3
... does not seem to listen when spoken to directly.				
... has difficulty organizing tasks and activities.				
... is easily distracted by extraneous stimuli.				
... fidgets with hands or feet or squirms in seat.				
... is "on the go" or often acts as if "driven by a motor".				
... interrupts or intrudes on others (e.g., butts into conversations or games).				

* Derived from DSM-IV.

THANK YOU

Reference

1. Chervin, R. D., Hedger, K., Dillon, J. E., & Pituch, K. J. (2000). Pediatric sleep questionnaire (PSQ): validity and reliability of scales for sleep-disordered breathing, snoring, sleepiness, and behavioral problems. *Sleep Medicine, 1*, 21–32.

Representative Studies Using Scale

- Archbold, K. H., Pituch, K. J., Panahi, P., & Chervin, R. D. (2002). Symptoms of sleep disturbances among children at two general pediatric clinics. *The Journal of Pediatrics, 140*(1), 97–102.
- Chervin, R. D., Archbold, K. H., Dillon, J. E., Pituch, K. J., Panahi, P., Dahl, R. E., & Guilleinault, C. (2002). Associations between symptoms of inattention, hyperactivity, restless legs, and periodic leg movements. *Sleep, 25*(2), 213–218.

63.1 Instructions for Scoring the Pediatric Sleep Questionnaire: Sleep-Related Breathing Disorders (SRBD) Scale

The 22 items of the SRBD Scale are each answered yes = 1, no = 0, or don't know = missing. The number of symptom-items endorsed positively ("yes") is divided by the number of items answered positively or negatively; the denominator therefore excludes items with missing responses and items answered as don't know. The result is a number, a proportion that ranges from 0.0 to 1.0. Scores >0.33 are considered positive and suggestive of high risk for a pediatric sleep-related breathing disorder. This threshold is based on a validity study that suggested optimal sensitivity and specificity at the 0.33 cut-off [1], but this number could be lowered in practice if increased sensitivity is a priority, or raised if increased specificity is a priority. Additional references that support the validity of the SRBD Scale, or employ it in research, are listed below [2–7].

Pediatric Sleep Questionnaire: Sleep-Disordered Breathing Subscale

070129

Child's Name: _____
 Person completing form: _____

Study ID #: _____
 Date: ____/____/____

Please answer these questions regarding the behavior of your child during sleep and wakefulness. The questions apply to how your child acts in general during the past month, not necessarily during the past few days since these may not have been typical if your child has not been well. You should circle the correct response or *print* your answers neatly in the space provided. A "Y" means "yes," "N" means "no," and "DK" means "don't know."

1. WHILE SLEEPING, DOES YOUR CHILD:				
Snore more than half the time?.....Y	N	DK	A2	
Always snore?Y	N	DK	A3	
Snore loudly?Y	N	DK	A4	
Have "heavy" or loud breathing?Y	N	DK	A5	
Have trouble breathing, or struggle to breathe?Y	N	DK	A6	
2. HAVE YOU EVER SEEN YOUR CHILD STOP BREATHING DURING THE NIGHT?Y				N DK A7
3. DOES YOUR CHILD:				
Tend to breathe through the mouth during the day?.....Y	N	DK	A24	
Have a dry mouth on waking up in the morning?Y	N	DK	A25	
Occasionally wet the bed?Y	N	DK	A32	
4. DOES YOUR CHILD:				
Wake up feeling unrefreshed in the morning?Y	N	DK	B1	
Have a problem with sleepiness during the day?Y	N	DK	B2	
5. HAS A TEACHER OR OTHER SUPERVISOR COMMENTED THAT YOUR CHILD APPEARS SLEEPY DURING THE DAY?Y				N DK B4
6. IS IT HARD TO WAKE YOUR CHILD UP IN THE MORNING?Y				N DK B6
7. DOES YOUR CHILD WAKE UP WITH HEADACHES IN THE MORNING?.....Y				N DK B7
8. DID YOUR CHILD STOP GROWING AT A NORMAL RATE AT ANY TIME SINCE BIRTH?Y				N DK B9
9. IS YOUR CHILD OVERWEIGHT?Y				N DK B22
10. THIS CHILD OFTEN:				
Does not seem to listen when spoken to directly.Y	N	DK	C3	
Has difficulty organizing tasks and activities.Y	N	DK	C5	
Is easily distracted by extraneous stimuli.Y	N	DK	C8	
Fidgets with hands or feet or squirms in seat.Y	N	DK	C10	
Is "on the go" or often acts as if "driven by a motor".Y	N	DK	C14	
Interrupts or intrudes on others (eg., butts into conversations or games).Y	N	DK	C18	

Thank you!

Reference List

1. Chervin RD, Hedger KM, Dillon JE, Pituch KJ. Pediatric Sleep Questionnaire (PSQ): validity and reliability of scales for sleep-disordered breathing, snoring, sleepiness, and behavioral problems. *Sleep Med* 2000;1:21–32.
2. Chervin RD, Weatherly RA, Garetz SL et al. Pediatric sleep questionnaire: Prediction of sleep apnea and outcomes. *Archives of Otolaryngology-Head & Neck Surgery* 2007;133(3):216–222.
3. Chervin RD, Archbold KH, Dillon JE et al. Inattention, hyperactivity, and symptoms of sleep-disordered breathing. *Pediatrics* 2002;109:449–456.
4. Archbold KH, Pituch KJ, Panahi P, Chervin RD. Symptoms of sleep disturbances among children at two general pediatric clinics. *J Pediatr* 2002;140:97–102.
5. Chervin RD, Dillon JE, Archbold KH, Ruzicka DL. Conduct problems and symptoms of sleep disorders in children. *Journal of the American Academy of Child & Adolescent Psychiatry* 2003;42:201–208.
6. Chervin RD, Clarke DF, Huffman JL et al. School performance, race, and other correlates of sleep-disordered breathing in children. *Sleep Med* 2003;4:21–27.
7. Chervin RD, Ruzicka DL, Archbold KH, Dillon JE. Snoring predicts hyperactivity four years later. *Sleep* 2005;28:885–890.